

Appl. No. : **10/810,048**
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AMENDMENTS TO THE SPECIFICATION

Please replace the Abstract with the following:

The present invention is related to a method and corresponding devices for controlled transport of magnetic beads between a position X and different position Y, ~~wherein said~~ such that the magnetic beads are manipulated or transported by applying successively a series of N local magnetic fields which have magnetic field gradients different from 0 in the neighborhood of said magnetic beads. Each of these N local magnetic fields is generated by a single current carrying structure, in which the current density is not constant. The invention mainly points to application in the domain of biochips and microarrays, used in diagnostics, genetics and molecular studies.